State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-161-2
Relating to Exemptions under Section 27156
of the Vehicle Code

GALE BANKS ENGINEERING
TURBOCHARGER KIT MODEL NO. 6.9F FOR FORD HEAVY-DUTY VEHICLES
POWERED BY A 6.9 LITER NAVISTAR INTERNATIONAL
HEAVY-DUTY DIESEL ENGINE

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the add-on turbocharger kit Model No. 6.9F manufactured by Gale Banks Engineering, 546 Duggan Avenue, Azusa, California 91702, using a Rotomaster turbocharger Model No. TO4B with an A/R ratio of 1.0 has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1983 through 1987 model-year Ford Motor Company heavy-duty vehicles powered by a 6.9 liter Navistar International heavy-duty diesel engine.

Modifications to the OEM emission-related parts due to the installation of the turbocharger kit include a new air cleaner assembly, a new 3" low-restriction muffler and 3" diameter exhaust pipe.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE GALE BANKS ENGINEERING TURBOCHARGER KIT FOR INSTALLATION ON FORD MOTOR COMPANY VEHICLES POWERED BY A 6.9 LITER NAVISTAR INTERNATIONAL HEAVY-DUTY DIESEL ENGINE.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executive Order No. D-161, dated March 10, 1986, is superseded and of no further force and effect.

Executed at El Monte, California, this $\frac{23^{\text{VM}}}{}$

day of October, 1986.

K. D. Drachand, Chief Mobile Source Division

State of California AIR RESOURCES BOARD

EVALUATION OF GALE BANKS ENGINEERING'S ADD-ON TURBOCHARGER KIT MODEL NO. 6.9F FOR INSTALLATION IN FORD MOTOR COMPANY HEAVY-DUTY VEHICLES POWERED BY A 6.9 LITER NAVISTAR INTERNATIONAL HEAVY-DUTY DIESEL ENGINE

EVALUATION OF GALE BANKS ENGINEERING'S ADD-ON TURBOCHARGER KIT MODEL NO. 6.9F FOR INSTALLATION IN FORD MOTOR COMPANY HEAVY-DUTY VEHICLES POWERED BY A 6.9 LITER NAVISTAR INTERNATIONAL HEAVY-DUTY DIESEL ENGINE

bу

Mobile Source Division

State of California AIR RESOURCES BOARD 9528 Telstar Avenue El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Gale Banks Engineering (Banks) has requested an update to the exemption from the prohibitions in Vehicle Code Section 27156 for their add-on turbocharger kit Model No. 6.9F designed for Ford Motor Company heavy-duty vehicles which are powered by the Navistar International (formerly International Harvester) 6.9 liter heavy-duty diesel engine.

The request is to include the 1987 model-year vehicle applications.

This would make the exemption applicable to the 1983-1987 Ford Motor Company heavy-duty vehicles which are powered by the Navistar International 6.9 liter heavy-duty diesel engine.

Based on the fact that Banks was previously granted exemption for the 1983-1986 model-years and that the 1987 certification documents show that the Navistar International engine family 6.9LD was carried over from the 1982 model-year, the staff concludes that the Banks 6.9F turbocharger system will have the same degree of performance/emissions impact on the 1987 model-year engines as it has on the 1986 and earlier model-year engines.

Therefore, the staff recommends that Banks be granted their request and that Executive Order D-161-2 be issued.

CONTENTS

		<u>Page Number</u>	
SUMMARY		i	
CONTENTS		ii	
I.	INTRODUCTION	1	
II.	CONCLUSION	1	
III.	RECOMMENDATIONS	ī	
IV.	TURBOCHARGER KIT DESCRIPTION AND EVALUATION	2	
٧.	DISCUSSION	2	

EVALUATION OF GALE BANKS ENGINEERING'S ADD-ON TURBOCHARGER KIT MODEL NO. 6.9F FOR INSTALLATION IN FORD MOTOR COMPANY HEAVY-DUTY VEHICLES POWERED BY A 6.9 LITER NAVISTAR INTERNATIONAL HEAVY-DUTY DIESEL ENGINE

I. INTRODUCTION

Gale Banks Engineering (Banks) of 546 Duggan Avenue, Azusa, California 91702, has requested an update to the exemption from the prohibitions of Vehicle Code Section 27156 for their add-on turbocharger kit Model No. 6.9F for Ford Motor Company heavy-duty vehicles powered by the 6.9 liter Navistar International (formerly International Harvester) heavy-duty diesel engine. The request is to include the 1987 model-year vehicles. This would make the exemption applicable to the 1983-1987 Ford Motor Company heavy-duty vehicles powered by the Navistar International 6.9 liter heavy-duty diesel engines.

Banks was granted an exemption for the 1983-1986 model-years under Executive Order D-161 on March 10, 1986.

II. CONCLUSION

Based on the submitted information, the comparative exhaust emissions tests performed on a 1985 Ford F-250 heavy-duty diesel truck and the 1987 certification documents which show that the Navistar International engine family 6.9LD was a carry-over from 1982, the staff concludes that the installation of the Banks turbocharger kit Model No. 6.9F will not adversely affect exhaust emissions from the 1987 vehicles for which the update has been requested.

III. RECOMMENDATIONS

The staff recommends that Banks be granted an update to include the 1987 model-year Ford Motor Company heavy-duty vehicles powered by the 6.9 liter Navistar International heavy-duty diesel engine and that Executive Order D-161-2 be issued.

IV. TURBOCHARGER KIT DESCRIPTION AND EVALUATION

For details of the turbocharger kit description and evaluation, please refer to the February, 1986 staff report entitled, "EVALUATION OF GALE BANKS ENGINEERING'S ADD-ON TURBOCHARGER KIT MODEL NO. 6.9F FOR INSTALLATION IN FORD MOTOR COMPANY HEAVY-DUTY VEHICLES POWERED BY A 6.9 LITER INTERNATIONAL HARVESTER HEAVY-DUTY DIESEL ENGINE".

V. DISCUSSION

The previous evaluation of the Banks 6.9F turbocharger system showed that it did not cause an adverse emissions effect when installed on a 1985 Ford F-250 pick-up truck. Since the Navistar International 6.9LD engine family has not been changed for the 1986 and 1987 model-years, no adverse emissions effect will occur when the Banks 6.9F turbocharger system is installed on the 1987 model-year vehicles.

An update should be granted and Executive Order D-161-2 should be issued.